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# Worldwide Report

**EPIDEMIOLOGY** 

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Briefs

BULGARIA-UK MEDICAL SYMPOSIUM--London, March 27 (BTA corr)--A one-week British-Bulgarian medical symposium was organized here with the assistance of the British Centre for Relations with the East European Countries. The delegation of Bulgarian researchers, led by Prof. Dr. Atanas Maleev, first deputy minister of public health, discussed some problems of immunology, virusology, combating cancer, hepatitis and other diseases with their colleagues from Britain. During the science sessions there have been reviewed interesting subjects on which researchers from Britain and Bulgaria worked, and views were interchanged on various matters of the combat for human health. The Bulgarian researchers were shown around some hospitals, research centres and institutes in London and Leeds. [Text] [Sofia BTA in English 1448 GMT 27 Mar 80 AU]

#### EXPANSION OF RIFT VALLEY FEVER FEARED

Hamburg DER SPIEGEL in German 24 Mar 80 pp 254-260

[Text] The broad valley of the East African river is known as the site which yields the richest finds for scientists searching for humanity's ancestors: the fossil bones preserved in the volcanic slag prove that the first "Hominidae"—mammals walking upright on two legs—roamed the grassy steppes of the Rift Valley, in what is modern Kenya, some 3 million years ago.

Now a new species seems to have set out from the same location in a campaign to conquer the globe—a virus, feared by epidemiologists on all continents, which can decimate herds of cattle and sheep and which is also capable of killing humans.

This viral species had been discovered by tropical physicians as long as half a century ago, and the fact that the pathogen which raged among the herds of cattle and the flocks of sheep and goats of the nomadic Massai was also transmissible to man was not at first considered as being very serious, because the Rift Valley fever—as it was called by the doctors—ran its course with headaches and muscle pains, just like a slight flu.

Even in the latest addition of the "Pschyrembel" medical dictionary, for example, the disease is described as "generally benign"—which is a mistake, as was made clear last month at a meeting of experts in New York. As far as the scientists can ascertain, the Rift Valley fever viruses have apparently altered their genetic make—up, so that the disease caused by the new viral variants can now have a fatal outcome for humans also. Thus, brain inflammation (encephalitis) was diagnosed in some patients infected with the Rift Valley virus, and some went blind, while others turned up with liver damage, in combination with skin hemorrhages. "The death rate has definitely increased over what it was," reported Yale University virologist Robert E. Shope in New York. In 1977 alone, 600 people died from Rift Valley fever in Egypt, and 200,000 came down with it.

Shope's colleague James M. Meegan calls the virus' sudden change a "scientific puzzle." Meegan believes that he has happened upon the trail of an epidemic during which the viruses have thrust out in all directions across the continent from the Rift Valley, as far as Capetown and Cairo.

In the course of this the pathogen initially followed the system of geological trenches extending from Mozambique in the South, across the Red Sea, as far as the Jordan depression. But the epidemic also pushed out into the desert countries with caravans whose own camels sometimes fell victim to it; Mali and Chad are as hard hit as the forested nations of Nigeria and the Congo on the west coast of Africa.

The aggressive form of Rift Valley fever was first observed in South Africa in 1975, but virologists did not become alarmed until 2 years later, when more than 200,000 animals succumbed to it in Egypt.

Young animals are especially endangered by Rift Valley fever, and in many instances herds of these have been decimated by as much as 90 percent. Miscarriage occurs almost without exception in pregnant cows, sheep and goats infected with the virus.

It is definitely established that the pathogens, which can invade dogs and cats with the lethal fever, are relatively easily transmissible to an. For example, five employees of the U.S. Naval Laboratory in Cairo were infected as they watched the forced slaughter of a sheep which had caught the disease—the men apparently breathed in the pathogens. Sick pets can also transmit Rift Valley fever by contact.

But in the majority of cases it is mosquitos which carry the virus pathogen from animal to animal or from animals to man. Eighteen different species of mosquito have now been etablished as carriers of the pestilence.

Non-Africans, too, have caught Rift Valley fever in recent months. According to a report by the U.S. Center for Disease Control in Atlanta, a 41-year-old Canadian woman, a tourist, went back home partially blind; she had been infected in Kenya and became bed-ridden a few days later.

A discovery made among Swedish soldiers is considered even more serious by officials of the World Health Organization in Geneva. As confirmed by their doctor, the Swedish soldiers, members of the U.N. peace-keeping troups in the Sinai peninsula, had antibodies against Rift Valley fever in their blood. This also served to prove that the viruses had penetrated beyond the African continent for the first time.

Israeli officials have therefore taken initial precautions, consisting of starting to vaccinate dogs and cats on the border with Egypt, using an Israeli-produced vaccine. Similar measures are envisaged for nomadic sheep, which are frequently driven onto Israeli territory, though in actuality this is a practically hopeless undertaking. We cannot even

conceive what might happen if Rift Valley fever were to spread to the Indian subcontinent, for example," commented Godske Nielsen, an authority on Rift Valley viruses at the Bernhard Nocht Institute in Hamburg. But the ones who are alarmed at the thought of a spread of the epidemic to other continents are the big meat-producing countries: Argentina, Australia and the United States.

This is why the pathogenic agents cannot be brought into the United States even for research purposes; the only exceptions are the Center for Disease Control in Atlanta and an army research installation at Fort Detrick, Maryland, where the laboratories are outfitted with special safety equipment.

In West Germany, even scientists at the Behringwerke in Marburg are not permitted to handle Rift Valley viruses; their importation is forbidden by the authorities of the Land of Hesse, even for experimental purposes. So the Marburg establishment could not comply with a request from Egypt to send some vaccine against Rift Valley fever.

The most stringent measures are currently being taken by Australia, which is building a huge quarantine station for animals coming from the affected countries; it is on the Cocos Islands in the Indian Ocean, 2,500 kilometers from the continent.

Epidemiologists doubt that such measures will be effective. "I believe that the world is pretty much unprepared to deal with a disease as devastating as this one may be," said American virologist Gerald E. Eddy.

And Prof Hans-Joachim Weise, epidemiologist at the Federal Health Department in West Berlin, would "ce tainly not exclude" the possibility that West German tourists in Africa might bring Rift Valley fever back home with them, "even though no case of it has been reported as yet."

The problem could become acute in the coming summer travel season if the virus-bearing mosquitos in Black Africa were to swarm out over a broad front. But even then, Weise says optimistically, there is no need to fear that the disease will spread to German soil.

Although the pathogens are among the most virulent forms of submicroscopic life, "the chain of infection would immediately be broken here," Weise is convinced. "In Germany we don't have any receiver mosquitos that could pick up the virus and transmit it further in our latitude."

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#### SURGEONS AND PHYSICIANS HOLD CONFERENCE IN SYDNEY

Poor Geriatric Care Scored

Melbourne THE AGE in English 27 Feb 80 p 15

[Text]

SYDNEY.—The elderly in Australia are the victims of an "apartheid" system of medicine which separates the care provided for acute illnesses from chronic illness, a medical specialist said yesterday.

cialist said yesterday.

Dr. R. B. Lefroy, of the Sir Charles
Gardiner Hospital, Perth, said doctors
were mainly interested in people they
could cure, and less in people with in-

could be treated.

The illugical separation of the two

The illogical separation of the two facets of medicine meant that the elderly were often denied access to hos pitals for proper diagnosis of their condition. Dr. Lefroy said.

Yet, with proper assessment, many elderly, disabled people could be restored to a high level of function.

He said about a quarter of the people in nursing homes would not be there if they had been assessed properly initually.

Lack of mobility, which is the main disability of the elderly, could be greatly reduced by a retraining programme in hospital. And their next greatest handicap, altered mental state — often derogatively and maccurately described as "senlity' — could often be reversed by proper diagnosis of the underlying causes, he said.

Dr. Lefroy was speaking on geriatrio medicine at the combined meeting in Sydney of the Royal Australian Colleges of Surgeons and Physicians and the Royal College of Physicians and Surgeons of Canada.

Another speaker, Professor R. D. T. Cape. of the geriatric medicine section of the University of Western Ontario, gave an example of the problems that can occur in prescribing for elderly people verging on heart failure.

Digitalis might be prescribed for the heart, a diuretic to increase fluid loss, and potassium to make up for lack in the body.

The diuretic could cause mild dehydration, affecting the mind and lowering the level of functioning.

He said this might invoke another prescription for a sedative or tranquiliser, which in the elderly could "take the edge off the ability to think and the motivation to be active".

Legionnaires Disease Discussed

Canberra THE AUSTRALIAN in English 28 Feb 80 p 2

[Report by Medical Writer Ron Hicks]

[Text] Air-conditioning systems in hotels can be a breeding ground for potentially fatal infectious diseases, according to a medical expert.

Professor Clement Boughton, from the Prince Henry Hospital in Sydney, said this at a press conference during the combined meeting of the Royal Australasian Colleges of Surgeons and Physicians.

Members of the Royal College of Physicians and Surgeons of Canada are also attending the meeting in Sydney by invitation.

Professor Boughton, a specialist in infectious diseases, was speaking mainly of legionnaire's disease, which was so-named after 182 US returned servicemen, attending a convention at an hotel in Philadelphia in 1967, contracted a mysterious, severe, flu-like disease which killed 29 of them.

It took doctors a year to identify the organism, a small rod-shaped bacter/um, which caused severe respiratory problems in the men.

But Professor Boughton said yesterday the bacteria had probably been around since the arrival of man.

Researchers in Australia, for example, have recently found evidence of the bacteria in a number of pneumonia patients.

# *IDEAL SITUATIONS*

· He said there were probably other dangerous organisms waiting to emerge when given the right circumstances.

One of the principal ways these unknown dangerous organisms can be cultivated and spread in modern society is through poorlymaintained air-conditioning systems.

"Warm, moist conditions and an accumulation of moist dust in poorlymaintained air-conditioning systems produce ideal situations for organisms to grow," Professor Boughton said.

"The organisms feed on the fungus which grows in these conditions and are transmitted by the throughout the building. the air-conditioning

The severity of the attack is influenced by the dose and the virulence of the strain. He said some people were also more susceptible than others because their resistance was lowered by such things as age.

Professor Boughton said the dangerous potential existed in most hotels, but he was most concerned about air-conditioning in hotels in tropical areas.

"I have been to conferences in the tropics where everybody suffered terrible upper respiratory-tract infections," he said.
"Ironically it is the hot humid climate

where you most need the air-conditioning.
"That is why it is very important to carefully maintain air-conditioning in large buildings."

#### SYLVAN YELLOW FEVER REPORTED IN VARIOUS LOCALES

#### Threat in Santos

Sac Paulo O ESTADO DE SAO PAULO in Portuguese 2 Mar 80 p 20

[Text] The discovery and destruction of three foci of larvae of the Aedes Aegypti mosquito, the carrier of yellow fever, in the district of Macuco has not altered the normal routine in Santos. The city is peaceful and the residents are remaining calm, unconcerned about the movements of the SUCAM [Superintendency of Public Health Campaigns] sanitation teams.

According to health authorities in the municipio, not a single case of the disease has been reported to date. The region's hospitals have been alerted to the appearance of any suspected case, and officials guarantee that the larvae foci will not have large repercussions.

Early in the morning, the SUCAN sanitation teams will resume disinfecting operations in Macuco, using two kinds of pesticides: "Abate," in the areas where water accumulates easily, to prevent the mosquitoes from ovulating, and "Sumition," a toxic product that directly and effectively destroys the larvae. "Sumition" is applied with motorized pumps, and is a highly reliable insecticide.

#### Vigilance

Officers of the Epidemiological Vigilance Service are monitoring the principal locations in the city where new foci might break out, especially the port district, although the work is concentrated in Macuco. If a focus is confirmed, all the city's houses and grounds will be rigorously inspected. Domestic wells will also be treated with "Abate," which is not hazardous to human health.

Urban yellow fever (there is another type--sylvan yellow fever) resembles severe hepatitis. The symptoms are the same in either infection--headache and general indisposition--but yellow fever victims begin to have attacks of vomiting, ranging in color from bright yellow to black, accompanied by a high fever, sudden drops in blood pressure, and weight loss.

#### More SUCAM Action

Sao Paulo O ESTADO DE SAO PAULO in Portuguese 5 Mar 80 p 13

[Text] (Santos-Bureau)--Santos is expecting the arrival of 15 endemic disease control officers today, to intensify operations to identify and apply pesticides to foci of the larvae of the Aedes Aegypti mosquito, the transmitter of yellow fever. The officers were called in by SUCAM because of the large number of foci discovered in Macuco district; initially, there were 3 foci, but, with new samples taken from standing waters, by last Friday the number had risen to 10.

Offering this information yesterday, SUCAM technicians explained that the agency intends to eradicate proven or suspected foci as soon as possible, "in order to restore calm among the residents of the region."

#### Sylvan Yellow Fever Threat

Rio de Janeiro JORNAL DO BRASIL in Portuguese 7 Mar 80 p 9

[Text] Brasilia--Waldir Arcoverde, minister of health, said yesterday that reinfestations in Goias by the mosquito that transmits sylvan yellow fever could create a negative image abroad and have serious economic consequences for the country, with the closing of ports and international airports.

He added that there are no urban yellow fever foci in the country, only sylvan yellow fever. Arcoverde yesterday announced a 2-year program to eradicate sylvan yellow fever foci.

#### Major Area

The minister explained that Brazil has the largest endemic area of yellow fever on the continent, because of the vast extent of its jungle.

According to the minister, the yellow fever cases verified in Goias do not constitute an epidemic. There were only eight cases, he said, although seven of them were fatal. He added that the technical commission appointed by the Health Ministry to execute the yellow fever control program has already suggested a series of procedures to eradicate the Aedes Aegypti mosquito, which carries urban yellow fever and which is now proliferating in Bahia, Rio de Janeiro and Rio Grande do Norte.

The commission has proposed a strict and inflexible policy for controlling the disease, recommending that the methods for eliminating foci be widely publicized by the permanent health services and in the mass media. It has also proposed increased production of vaccines and more vaccination centers.

#### One Death in Rondonia

Sao Paulo O ESTADO DE SAO PAULO in Portuguese 9 Mar 80 p 22

[Text] (Correspondent in Porto Velho) -- Yellow fever has been verified as the cause of I death in Rondonia, in the municipio of Ariquemes, and 10 more cases are being examined by the Evandro Chagas Institute in Belem. The victim was Ivete de Oliveira, aged 15, a native of Mato Gross, who lived with her parents in one of the tracts of the Burareiro project. The death occurred on Friday, and the body was sent to the Institute of Legal Medicine in Porto Velho, where the liver was removed for pathological examination by the Oswaldo Cruz Health Center.

In the other deaths where sylvan yellow fever was suspected, liver samples were sent for examination by the Evandro Chagas Institute in Belem. As of yesterday, however, the Rondonia Health Secretariat said it had nothing to report, although the examination of Ivete de Oliveira's liver is being conducted by a laboratory belonging to the secretariat.

In any event, SUCAM is intensifying administration of yellow fever vaccine in various locations in Rondonia, and is advising everyone who plans to go to the settlement tracts, or even intends to hunt or fish, to be vaccinated to avoid the risk of contamination. Last year in Vilhena, 63,000 doses were given to people who were going to locate in Rondonia.

#### Yellow Fever Vaccination

Rio de Janeiro O GLOBO in Portuguese 14 Mar 80 p 6

[Text] Porto Velho, Roraima (O GLOBO) -- SUCAM has begun a mass vaccination against sylvan yellow fever in the settlement projects of Barateiro, Marechal Dutra and Baru, after 11 suspected cases were detected in January and February. In addition, SUCAM is conducting an education campaign in the schools and MOBRAL [Brazilian Literacy Movement] posts, to instruct the settlers. According to health officer Raul Diniz, regional director of SUCAM, of the 57 suspected cases throughout the territory in 1979, only 2 were confirmed.

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#### CHAGAS DISEASE REPORTED PREVALENT IN FEDERAL DISTRICT

Brasilia CORREIO BRAZILIENSE in Portuguese 11 Mar 80 p 11

[Excerpts] "There are easily over 100,000 residents in the Federal District with Chagas disease. Just among people who undergo blood tests in the city's hospitals, 10 to 15 percent have the disease." The statement comes from Health Secretary Jofram Frejat, who explains that the figures are "just a guess, because there has been no study of the problem."

The secretary's statement comes after the rumors that a 6-year-old girl has died of the disease in Sobradinho, rumors confirmed in part by Adalberto Correa Cafe, the director of the local hospital, who said "it would not be surprising, because there are many cases or the disease here."

The death of the child did not surprise the health secretary, either, since the Geoeconomic Region of Brasilia is part of the endemic area. "Chagas disease is present in a large circle that covers the entire state of Goias, northern Minas Gerais, northern Sao Paulo, eastern Bahia and southern Piaui, taking in from 6 to 8 million people," Frejat explained.

The secretary said, however, that the disease transmitter, Trypanasoma Cruzi, does not exist in the Federal District, and that all the cases registered here are migrants who bring the disease in from outside. "Once it has entered the blood stream, the Trypanasoma never leaves, and causes problems that will certainly cause the patient's death, years later," he said.

#### Migrants

Noting that only now is an attempt being made to conduct a nation-wide study of Chagas disease, Alberto Cafe, director of the Sobradinho Hospital, assured that "although the incidence of Chagas in this hospital is fierce, the transmitting agent is not found in Sobradinho; most of the carriers are migrants, mainly from Bahia, Goias and neighboring regions."

Secretary Frejat explains that not only Sobradinho but all the Federal District is free of the transmitting agent. "There are some species of 'barbeiro' ["barber bug"] in the Federal District, but the only ones we have found of the same species that carries the disease have not been contaminated with the Trypanasoma Cruzi."

Cycle

According to the health secretary, Chagas disease follows a basic cycle, which is broken within the Federal District because conditions are generally unsuitable for the survival of the transmitting agent.

"The disease obeys a cycle that begins with wild animals--dogs, cats, the saki and the monkey. These animals are host to the Trypanasoma Cruzi, which they transmit to a certain species of 'barbeiro' when they are bitten by the latter. This species of 'barbeiro' is almost never found in the Federal District, but in certain rural areas it is customary to say that 'the house belongs to the "barbeiros," and man is the intruder, " Adalberto Cafe explained.

He added that the second phase of the cycle occurs with the "barbeiro."
"The 'barbeiro' is not found in an urban environment, because its natural habitat is in the gaps of stud-and-mud houses, which are very common in the interior. This type of dwelling is not found within the limits of the Federal District, which is one of the reasons why this species of 'barbeiro' is not seen here."

Secretary Fre at admitted, however, that there had been many Chagas cases in Planaltina, "but the transmitting agent was eradicated with the destruction of the stud-and-mud dwellings and the creation of more sanitary conditions among that population." According to Frejat, simpoy the fact that people with Chagas disease are no longer defecating in the rivers breaks the trypanasoma cycle.

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MEASLES, TYPHOID IN TERESINA -- Teresina -- Five children have died during the measles epidemic that broke out in the municipio of Buriti dos Lopes (372 kilometers north of Teresina), according to a report forwarded to the Civil Defense Commission by Mayor Antonio Tavares Ribeiro. The major focus is in the district of Coroa de Sao Remigio. 18 kilometers from the municipal seat, where health officials have also detected an outbreak of typhoid fever. In the area of Barra do Longa, the population has been stranded by the flood waters of the Longa and Parnaiba Rivers. They are lacking milk for nursing infants, who are being fed sugar-water, said Deputy Luis Gonzaga Paes Landim. Buriti dos Lopes is the last municipio downstream of the Boa Esperanca Dam to escape flooding by the Parnaiba River. Rain is still falling in the capital, and the water level is rising in the Poty and Parnaiba Rivers, which surround the city. Col Jose Rodrigues, secretary of the Civil Defense Commission, said that 409 houses in the blue-collar districts of Malinha, Agua Mineral, Poty Velho and Porenquanto have already been ruined. Some 2,145 people are without shelter, and are receiving assistance in the urban social centers from the Commission for Community Affairs, an agency of the state government. [Text] [Rio de Janeiro JORNAL DO BRASIL in Portuguese 5 Mar 80 p 8] 6362

#### INCREASE IN MALARIA INCIDENCES REPORTED

Bogota EL TIEMPO in Spanish 21 Feb 80 pp 1-B, 10-B

[Text] Last year the National Malaria Eradication Service (SEM) detected 60,957 cases of malaria. This is only an approximate figure, because there is under-registration of statistics, and it is estimated that 250,000 people become ill annually.

German Campos Garrido, director of the SEM, is of the opinion that the malaria situation is extremely serious at present in certain areas, because the number of sich people found is extremely high, and because among the communicable diseases malaria is second only to diarrhea and enteristis as a cause of illness.

Moreover, in spite of the use of antimalarial measures, the spread of the disease has not been much affected in vast areas of the country, and has reached almost explosive levels in some regions such as in Uraba, the Lower Cauca or northeast Antioquia, the Alto Vaupes, the Ariari-Guejar, the Middle Valley of the Rio Magdalena, the Catatumbo, the Sarare, some places on the Pacific Coast and the Intendencia of Caqueta.

It should be added that the "plasmodium Falciparum," which is the most virulent of all of the known parasites, has become resistant to the drugs, and the other parasite, the "plasmodium Vivax", is causing increasingly frequent long-term relapses.

It is said that 85 percent of the area of the country, up to 1500 meters altitude, has characteristics favorable for the appearance of malaria in endemic or epidemic form.

This means that approximately 16 million persons live in malarial areas, of which 4 million are permanently exposed to the risk of becoming ill, because they reside in regions where climatological and ecological factors are favorable to the presence, high density and long life of the mosquitoes that transmit the parasites.

It should be added that since the disease is predominantly rural, the large number of cases in the countryside cause important losses in working days and limitation of the economic capacity of the lamily group, reducing significantly the contribution of agrarian production to the national product, and increasing unemployment in the regions affected.

#### Determining Causes

In dealing with a disease with very complex epidemology and pathogenesis, where factors basic to living beings with very different positions on the animal scale are involved—such as, first, man, the mosquito and the paras'te—many causes which are responsible to a greater or lesser degree for its spread in the problem regions must be studied.

In the case of man, the migratory customs of colonization in the jungles help the disease to spread. The sometimes violent resistance to activities to prevent it, as well as the construction of very flimsy dwellings or houses, which sometimes lack walls, or have incomplete walls which make for greater exposure to the bite of the mosquitoes, or hinder the application of insecticides for controlling them, and the impossibility of reaching inaccesible places because of civil disorder are some of the reasons why an important reservoir of malaria is continually being established, from which the disease spreads to adjacent or distant areas.

On the other hand, there are 34 species of mosquitoes of the genus Anopheles in Colombia, of which some 11 are known to be efficient transmitters of the disease under natural conditions. In the regions where malaria persists, at least five species are found in turn throughout the year, and some of them have become resistant to insecticides, while others have changed their habits to escape their action.

#### Order of Priority

In view of the situation described above, the national government, through the Ministry of Public Health, this year set aside the sum of 600 million pesos to combat the disease. More than 800 million will be appropriated for 1981, and almost 1 billion for the final year of the present administration. Last year the amount allotted was 120 million pesos.

Also, the activities of the SEM have expanded. Besides the traditional spraying of the walls of more than 400,000 houses in 14,400 villages of the country with residual-action insecticides, these activities include fumigation around the houses and biological control with larva-eating fish, cleaning up of the environment, the seeking-out, treatment, research on and checking of the people suffering form malaria, the obtaining of blood samples for microscopic examination, the individual or mass administration of antimalarial medications, health education for the population receiving the services, and the development of basic and applied research in medical entomology, chemotherapy, insecticides, reaction of the parasites to the drugs, and the reasons for the persistence of the disease in some areas.

#### Other Activities

The SEM is promoting other field activities leading to the eradication of "pain", which is an endemic illness on the Pacific Coast. Operations against the "Aedes Aegypti" mosquito, the carrier of yellow fever and dengue, are also being carried out throughout the country, but priority is being given to the geographic valley of the Cauca River in the departments of Cauca, Valle, Risaralda, Quindio and Caldas.

A decision has also been made to further a program of immunization against yellow fever in the rural areas during the period of 1980-83. The goal will be 100 percent coverage of the population exposed to the risk of becoming ill with this scourge, and it is expected that around a million vaccinations will be given.

#### Infrastructure

The SEM at present has an infrastructure which is so complete that it allows penetration into the most remote village of the so-called malarial zone.

In 1979, the service made use of 27 professionals, including doctors, engineers and others; 2,333 nonprofessional persons such as assistant entomologists, microscopists, statisticians, supervisors, inspectors, sprayers, brigade chiefs, drivers, mechanics, sailors, and other necessary personnel. Its transport unit has a fleet made up of 16 trucks of more than 3 tons, 120 pick-ups, 120 campers, 40 motorcycles, 160 bicycles, 270 boats and around 1,000 vehicles for the movement of personnel into the countryside.

In 85 percent of the area of Colombia field officials periodically offer health services to the rural community.



A SEM worker applies insecticide against the anopheles, the mosquito which transmits malaria.



An operative in the campaign against dengue fever fumigates around a house to eliminate the mosquito which carries the disease.

FLU WAVE RECEDING--Prague, Bratislava, CTK--The number of influenza cases in Prague and the north and central Bohemian regions -- which had reported a striking increase of flu cases toward the end of January -- is now showing a tendency to decrease. In the other regions of the Czech Socialist Republic, in which the incidence of influenza was on the increase in February, the number of flu cases is either on the decline, or the trend toward increasing further is slowing down. We can thus soon expect that the incidence of this complaint will revert to the normal level for the present period. the Slovak Socialist Republic [SSR] last week 97,000 people consulted physicians; this is approximately 3000 people less than during the preceding week. While the number of ailing persons in central and eastern Slovakia is systematically decreasing, according to data supplied by the SSR's Ministry of Health, the number of patients in Bratislava and the West Slovak region has slightly increased. All the influenza viruses isolated on CSSR territory this winter are very close in structure to the A-77 (Texas) stem, which was isolated in our country already in the last 2 years. Thus it cannot be said that the course taken by influenza this year is any different from its course in the last few years. [Text] [AU051410 Bratislava PRAVDA in Slovak 4 Mar 80 p 2 AU]

FLU CASES DECREASE—Bratislava, CTK—The number of patients with colds who sought out medical aid in the Slovak Socialist Republic [SSR] this week has decreased. The SSR Ministry of Health has received reports from individual regions in Slovakia on 86,000 patients suffering from influenza and similar ailments. This is about 25,000 less than last week. Although about 700,000 citizens in Slovakia fell ill this year, the extent of this year's epidemic in no way surpassed earlier flu waves. Complications occurred among approximately 3 percent of the patients, so that the course of this year's epidemic can be assessed as relatively mild. [Text] [AU251112 Bratislava PRAVDA in Slovak 22 Mar 80 p 2 AU]

ETHIOPIA

#### BRIEFS

CHILDREN'S DISEASE VACCINATIONS—Awassa—A vaccination campaign against six children's diseases is in progress in Soddo town, Sidamo region, since last week. Children below two years of age and pregnant women are being vaccinated every Friday, according to Comrade Eyuel Jarsso, Health Officer of Wolayita province. [Text] [Addis Ababa THE ETHIOPIAN HERALD in English 30 Mar 80 p 8]

ENCEPHALITIS SPREADS--Tuticorin, March 10--Viral encephalitis, known as brain fever, has a read in Tirunelveli district. (A few days ago three deaths from suspended encephalitis are reported to have occurred at the Government Hospital, Tenkasi.) Mr. T. S. Selvaraj, District Collector, said in an interview that seven children in Tenkasi had been admitted to the local Government hospital. Besides, seven children in Kadayanallur and eight children in Tirunelveli we admitted to the respective government hospitals. Out of 22 children, five had died--two in Tenkasi and three in Kadayanallur. All were below 10 years. [Text] [Madras THE HINDU in English 20 Mar 80 p 12]

CS9: 5400

CHOLERA OUTBREAK--The Minister for Health, Mr Arthur Magugu, has called on the Coast Provincial Administration to introduce three checkpoints between Vanga and Mombasa in order to contain the spread of cholera. The manifestation of the disease started in March this year following the importation of a case from Tanzania. The minister, who made his sentiments about health conditions in southern coast known after touring Msambweni, Lunga Lunga and Vanga hospitals, said that despite active surveillance, cholera symptoms continued to be discovered both in Vanga and Jengo localities, in Kwale district. The minister pointed out that to date there have been 30 cases, 138 symptomatic carriers and 1 death. During his tour, Mr Magugu directed that all eating places, especially kiosks, be under close scrutiny with a view to closing down those which aid not meet health conditions. [Text] [LD021148 Nairobi Domestic Service in English 0600 GMT 2 Apr 80 LD/EA]

MALAYSIA

#### BRIEFS

CHOLERA IN KEDAH STATE--Two confirmed cases of cholera have been admitted to the district hospital in Parit Buntar, Kedah State. [Kuala Lumpur Domestic Service in English 1130 GMT 6 Mar 80 BK]

#### DEATH RATE FROM RABIES RISES DRAMATICALLY

Johannesburg THE STAR in English 26 Mar 80 p 1

[Excerpts] Durban--The death toll from rabies has risen to 16 in the northern districts of Natal and the numbers could rise dramatically as infected stray dogs continue to ravage the area.

Many rabid dogs--most of which are infected with the ferocious strain of the disease--are making their way southwards to Vryheid and Mkuze where several cases have been reported in the past few days.

In Mozambique the veterinary division has ceased all operations and hundreds of diseased animals—suffering from a variety of diseases, including rabies—are drifting over the South African border in the remote areas of northern Zululand.

There has been an incentive drive by the President Samora Machel to woo Portuguese veterinary surgeons back into service.

Most of them fled the country and are now practising in Transkei. Many have said they would not return.

"There is absolutely nothing more than we can do," said Dr O Posthumus, assistant director of veterinary services in Natal.

"We have completed massive immunisation programmes in all those areas. It is now up to residents and farmers to be on a constant lookout.

"At this stage we cannot predict that there will be any improvement in the situation. It is not so much animals which are now at risk, but people themselves."

POLIO CASES--Eleven polio cases have been confirmed in eastern Swaziland and a massive immunization programme has begun. The 11 victims are being treated in the Good Shepherd Hospital in Siteki a few kilometers from the Mozambique border. Dr Ruth Tshabalala of the Swazi Health Ministry said 1,000 children in the area had already been vaccinated. It is understood 26,000 doses of vaccine will be donated by the Save the Children Rund. The first cases of polio were reported in mid-January and the most recent were discovered last week. Dr Tshabalala said local communities were proving co-operative after briefings by chiefs and Health Ministry staff. [Text] [Salisbury THE HERALD in English 26 Mar 80 p 4]

CHOLERA DEATHS IN NONG KHAI—Nong Khai—Cholera has claimed the lives of three persons here since last Tuesday—two of the victims were said to be Laotians taking refuge at a holding centre outside this provincial seat. An official report said so far 37 people have been admitted to the provincial hospital for treatment of cholera. Reports of the death of the two refugees have created fears among provincial authorities of a possible outbreak of the disease in the province. Dr Vara Rojahasdin, director of the provincial hospital, was quoted as saying that a shipment of food which was delivered to the refugees last week was contaminated. He said five of the 37 patients are Laotian refugees. Of all the patients, 15 are believed to be inflicted with the disease, the rest may simply have diarrhoea. [Text] [BK250253 Bangkok POST in English 25 Mar 80 p 3 BK]

MEASLES VACCINATION CAMPAIGN-Bandundu, 12 Apr (AZAP) -- The anti-measles vaccination campaign which was launched on 29 March 1980 in the Bandundu urban subregion is going on normally. More than 1,345 children aged from 9 months to 3 years have been inoculated. Citizen Yay Tshimika who leads the team of the Expanded Inoculation Program, PEV, in Bandundu and supervises the campaign, indicated that only 1,950 doses of vaccine out of the 5,000 received from Kinshasa have been used since the launching of the campaign which is scheduled to end 17 April. A team of male nurses from the General Hospital is temporarily assigned to the operation. [Text] [AB141520 Kinshasa AZAP in French 1601 GMT 12 Apr 80 AB]

MALARIA IN MATOPOS--Bulawayo. Bulawayo holiday makers, particularly those staying overnight in the Matopos, were yesterday warned by the Provincial Medical Officer of Health for Matabeleland, Dr Alan Pugh, to take antimalaria tablets. The province is having its worst outbreak of malaria for 10 years, he said in an interview. "It is very important for holiday-makers traveling out of Bulawayo to take anti-malaria tablets, and to continue to do so for at least four weeks after their return." This applied particularly to people staying overnight in the Matopos. Those spending only a day in the area should be unaffected, he said. "Many people who have not been able to go camping or fishing for many years could expose themselves to the danger of contacting malaria as they rush off for their holidays." So far this year there have been 1,208 cases reported in Matabeleland. In January there were 275, in February 420 and in March 513. [Text] [Salisbury THE HERALD in English 4 Apr 80 p 11]

BOVINE BRUCELLOSIS LOSSES, IMPUNIZATION DISCUSSED

Sao Paulo O ESTADO DE SAO PAULO in Portuguese 27 Feb 80 p 19

[Text] Last year Brazil lost 17.5 billion cruseiros because of bovine brucellosis, according to estimates by veterinarians of CATI [Office of Coordination for General Technical Assistance], Secretariat of Agriculture. The veterinarians took into account the economic losses in milk and meat, as well as the loss of the animals themselves.

The figure was cited yesterday by veterinarian Romario Cerqueira Leite, during a round table on bovine brucellosis sponsored by the Biological Institute.

Leite presented a series of statistics he had gathered for CATI which verify the increasing decline in vaccinations against brucellosis, despite the expanded herd and the activation of some official technical assistance services.

Analyzing data from 1969 to 1979, he observed that 6 percent of the herd, about 71,000 animals, were vaccinated during the first year of this period, and the rate grew until 1975. The maximum coverage was achieved in that year, when 25 percent of the herd (about 230,000 head) were vaccinated. From them on the rate dropped, and in 1979 only 110,000 head, or 16 percent, were vaccinated.

Among the causes for this reduction, Leite cited reasons of an administrative, technical, economic and behavioral nature. Regarding the responsibility of official agencies, he indicated the lack of a continuing campaign or a well-defined policy for animal health defense. "There is no specific state law regarding brucellosis. There is only (federal) legislation for control of foot-and-mouth disease, and any measures that are sought at the state level regarding brucellosis rum into bureaucratic and legal roadblocks. Moreover, within the secretariat organisation, the brucellosis program lacks the necessary power of decision. In addition, there is administrative and political discontinuity."

6362

CATTLE LEUKEMIA DIAGNOSIS--Dr. Jan Zavada of the Institute of Virology, Slovak Academy of Sciences, has discovered a new method of diagnosing leukemia in cattle. The current and most widely used method of "immunoprecipitation" can diagnose leukemia in six weeks to three months after infection, compared to Dr. Zavada's of one to two weeks. A laboratory-produced "transformed" virus is kept frozen in ampules to 70 degrees Celema. Later it is dilluted, mixed with blood serum for tested cows and after one hour poured into a container with indicator culture. The virus is left to multiply for two days before the results are known. [Proceedings of the container with indicator culture of the container with indicator culture.]

DENMARK

#### AUTHORITIES READY PARVO VIRUS VACCINE IN CASE CANINE ILLNESS SPREADS

Copenhagen BERLINGSKE TIDENDE in Danish 29 Feb 80 p 3

[Article: "Vaccine for Dog Virus"]

[Text] After 1 March all dogs in Denmark can be vaccinated against Parvo virus, a disease that has not yet spread to Denmark but has appeared in Sweden and England, among other places. The Danish Kennel Club announces that it has guaranteed 320,000 kroner for purchase of the vaccine, an amount sufficient for 20,000 dogs.

The State Veterinary Serum Laboratory will purchase the vaccine and the Kennel Club will pay for the vaccine not used.

The Parvo virus is an infectious disease that attacks pups and young dogs in particular. It can endanger the lives of dogs, but is not so terrible that it deserves the name "Dog Plague" attached to it by the press, according to HUNDEN, the Kennel Club publication.

The first shipment of vaccine from the United States will not suffice for all dogs. Working dogs, such as guide dogs will therefore be given the highest priority.

11,256 CBO: 5400

#### MEASURES TAKEN AGAINST ANIMAL DISEASES

Addis Abab THE ETHIOPIAN HERALD in English 12 Mar 80 pp 1, 8

[Excerpt] Speaking about the veterinary services given at present, Comrade Dr Tamrat said the work is being carried out besides himself by 25 vaccinators, and three animal health assistants. He expressed the view that the size of the technical staff has to be raised in future in order to cope with the existing demand.

The veterinary expert explained that treatment for external parasites is done by spraying and passing the animals through dipping baths. He said at present there are such dipping baths and crushes at Jijiga, Fugnanbira, Fafem and Babile serving bovine cattle, sheep and goats. The dipping bath and crushes at Jijiga are functioning normally while the remaining three are expected to become operational very soon. Comrade Dr Tamrat noted that more dipping baths and crushes are to be built in future in places where the livestock population is considered very high in addition to the existing facilites. The possible sites selected in this connection are Fik, Kebribeyah, Harshin and Tchinaksen.

The veterinarian commented appreciably on the work done so far by the veterinary stations operating in the three provinces of Jijga, Gursum and Degahbour, lying within the 33,000 kilometres stretch covered by the JIRDU programme. Once more he stressed the need for setting up veterinary stations in different districts and localities in keeping with the size of the livestock population and their movement. He pointed out that the crushes will be used for holding the animals during mass vaccinations and the dipping baths are meant for the control of external parasites. He said each station is well-equipped keeping the necessary tools and drugs for vaccination and treatment purposes.

#### Proper Measures

Part of the veterinary operations involves the training of people selected from peasants' and grazers' associations on animal health and care of livestock, and eventually act as liaison between their respective associations and the veterinary department. They are expected to play vital roles by way of helping organize mass vaccination and disease control programmes to be held in the field.

The expert made further observation on the satisfactory progress of the veterinary programme as peasants are taking full advantage of the services. He also praised the enthusiasm demonstrated by the staff in the discharge of their duties effectively and responsibly despite the security situation at certain places.

Dr Tamrat declared that the outbreak of rinderpest and CBPP has been reduced considerably as a result of mass vaccinations conducted in the project area. No fresh cases have been reported. Vaccinations are mainly given against anthrax, black leg, rinderpest, CBPP, pasterolosis. In the case of camels and cattle treatment is primarily given for trypanosomiasic, blood and internal parasites and other clinical cases borne out of various causative agents.

The veterinarian described rinderpest and contagious bovine pluro-pneumonia (CBPP) as most dangerous diseases, which call for continuous vaccinations among young calf crop and unvaccinated animals. Since the diseases such as black leg and anthrax occur sporadically annual vaccinations should be carried out in places suspected or whenever outbreaks are reported. The veterinary expert concluded his remark by pointing out the economic harm that internal and external parasites are causing the nation and urged for proper measure to be taken against them in every direction.

ETHIOPIA

#### BRIEFS

WOLLEGA VACCINATES CATTLE--Nekemt (ENA)--A total of 639,884 heads of cattle were vaccinated against different diseases from July 8, 1979 to February 8, 1980 in Wollega Region. [Excerpt] [Addis Ababa THE ETHIOPIAN HERALD in English 27 Mar 80 p 3]

VACCINATION CAMPAIGN DELAYS-A team has left for the southern part of the country where it will conduct a livestock vaccination campaign in the Tombali and Quinara regions. This team has already completed the vaccination campaign in some areas of Tombali. Among the difficulties it has encountered has been the resistance, on the part of some owners, to present the total number of heads in their herds for vaccination, thus delaying the entire campaign. [Text] [Bissau NO PINTCHA in Portuguese 22 Mar 80 p 3]

INCIDENCE OF RABIES, TRYPANOSOMIASIS, BRUCELLOSIS Nairobi SUNDAY NATION in English 30 Mar 80 p 3 [Excerpt]

> NORTH EASTERN Province remained under quarantine of rabies throughout 1979, and one case of rabies was reported in Wajir.
> The disease attacked a donkey

and nobody knows what transmitted the virus to the

transmitted the virus to the donkey.

This was revealed in the Livestock Development Annual Report issued by the Provincial Veterinary Officer, Dr. J.H. Onyango. He said that 181 dogs were destroyed in the province and only one dog was vaccinated against the disease.

Dr. Onyango waid that trypanosomiasis disease was a big problem and major livestock-killer, especially along Tana and Daus Rivers, and is common in the whole province.

The report cited 15 cases of brucellosis from 250 sheeps and goats and found that brucellosis disease was present

RABIES PREVENTION MEASURES--A total of 2,000 dogs have been killed and 800 others vaccinated since the outbreak of rabies in Kilgoris. The area's veterinary officer, Dr Paul Busolo, said the disease broke out in November last year, and that it had continued to kill dogs. But he said he expected the disease threat to end next month. Dr Busolo added that dogs from neighboring South Nyanza District made their work very difficult although, he said, such dogs were killed on the spot. He thanked the residents for cooperating with the veterinary staff to contain the disease. Dr Busolo said the poor access roads made the work more difficult as the officers had to walk long distances to reach the manyattas. [Excerpt] [Nairobi DAILY NATION in English 31 Mar 80 p 5]

FOOT-AND-MOUTH DISEASE--The European Economic Community (EEC) is to give Swaziland a grant of E40,000 to combat the foot and mouth disease along the common border with Mozambique. This was announced by the delegate of the EEC Commission in Swaziland, Mr M B McGeever. The grant was described in a statement as "exceptional aid." This grant will be used mainly to buy urgently required vaccine for continuation of the vaccination programme in the border area. [Text] [Mbabane THE TIMES OF SWAZILAND in English 20 Mar 80 p 1]

BEAN DISEASES CATALOGUED--Abunda College of Agriculture agronomist, Dr O.T. Edje, has advised the people of this country to grow a lot of beans because the crop has a high yield of protein and energy. Dr Edje also spoke about diseases which attack beans thereby limiting the bean yield in Malawi. He said that although a total of 23 diseases has been reported, the Bunda investigators had found only five as the most deadly-ones. These are the anthracnose caused by fungus, the halo blight caused by a backerium, the angular leaf spot caused by a fungus, the wex blight caused by a fungus and the rust also caused by a fungus, with the two first ones being most common in Malawi. On the pests which attack beans, he said that the most important ones are the beetles, beanfly, American bolloworm, aphids, custworms, and nematodes. In storage, Dr Edge singled out the bean weevil as being the most serious pest. [Excerpts] [Blantyre DAILY TIMES in English 27 Mar 80 p 6]

END

# SELECTIVE LIST OF JPRS SERIAL REPORTS

# WORLDWIDE SERIAL REPORTS

WORLDWIDE REPORT: Environmental Quality

WORLDWIDE REPORT: Epidemiology
WORLDWIDE REPORT: Law of the Sea

WORLDWIDE REPORT: Nuclear Development and Proliferation

WORLDWIDE REPORT: Telecommunications Policy, Research and Development

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